STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201
Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

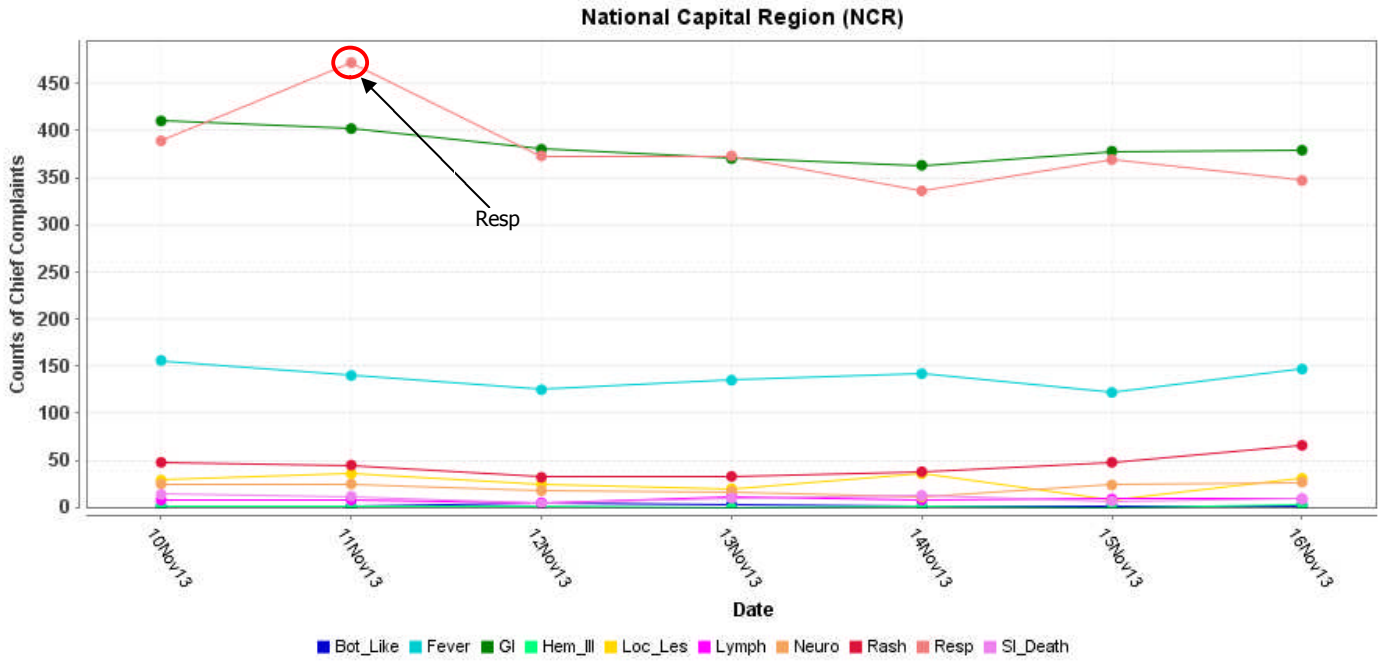
November 22, 2013

Public Health & Emergency Preparedness Bulletin: # 2013:46
Reporting for the week ending 11/16/13 (MMWR Week #46)

CURRENT HOMELAND SECURITY THREAT LEVELS

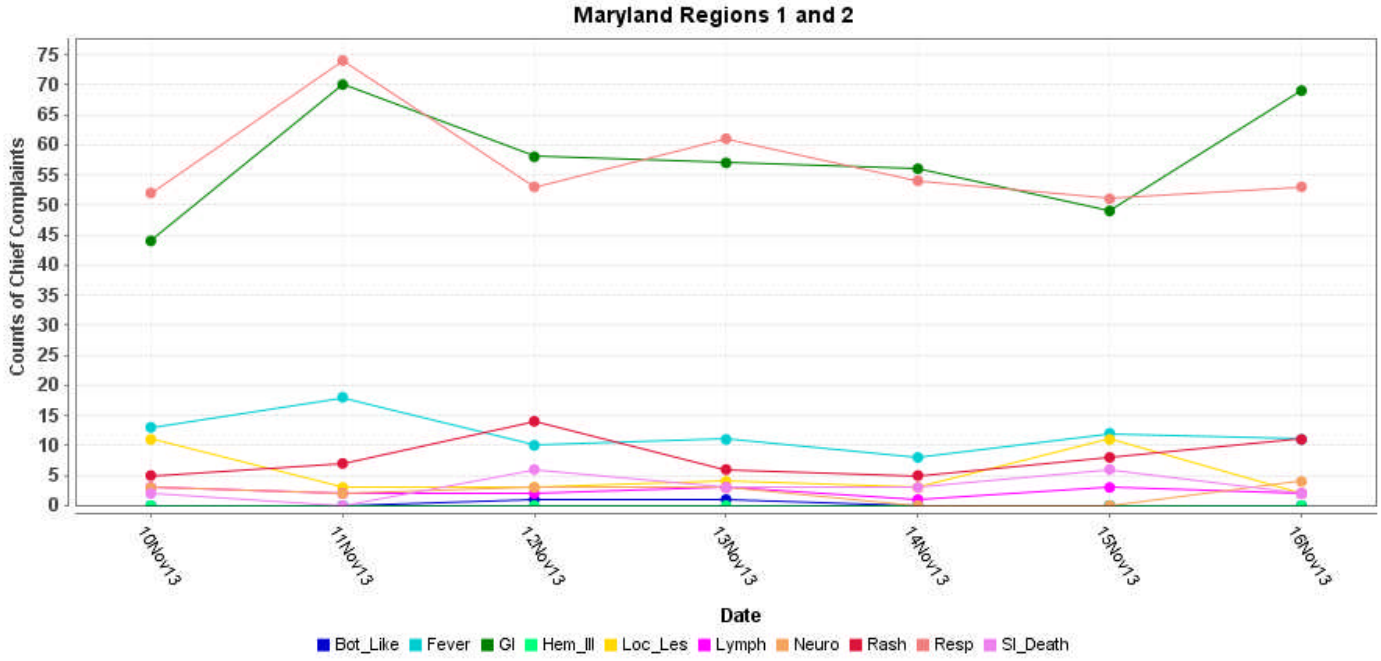
National: **No Active Alerts**
Maryland: **Level Four (MEMA status)**

SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

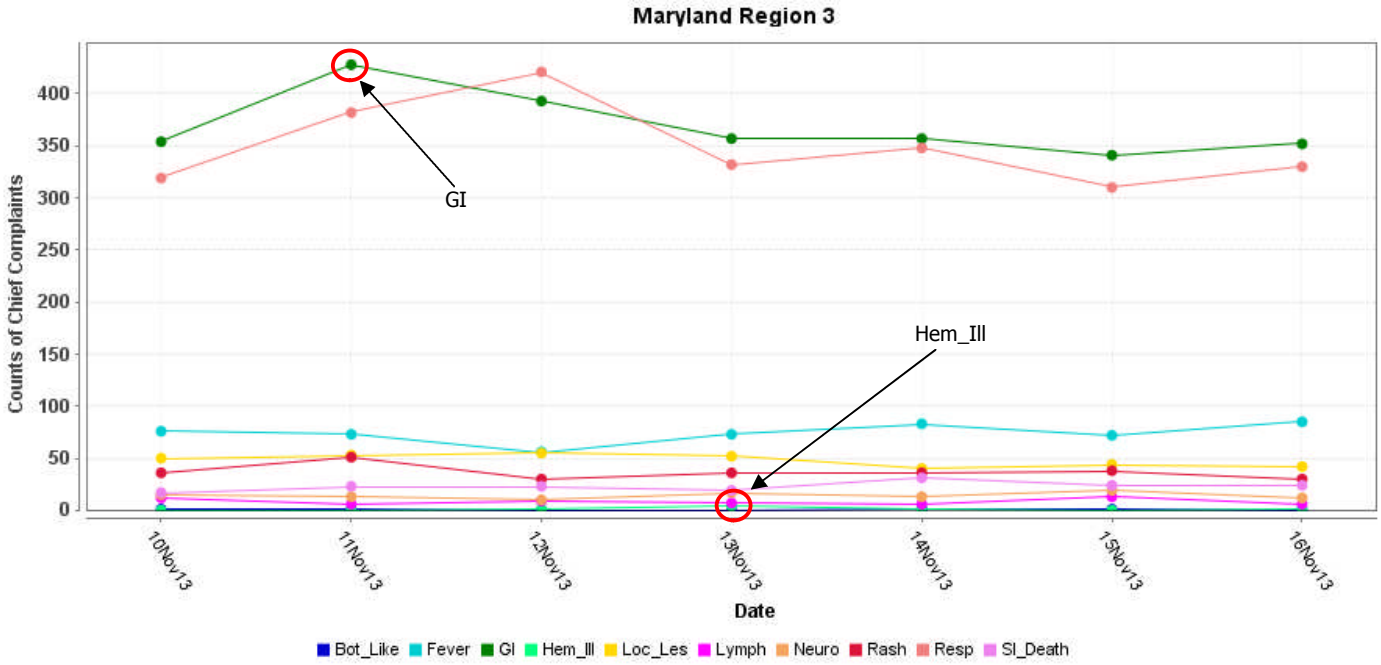


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

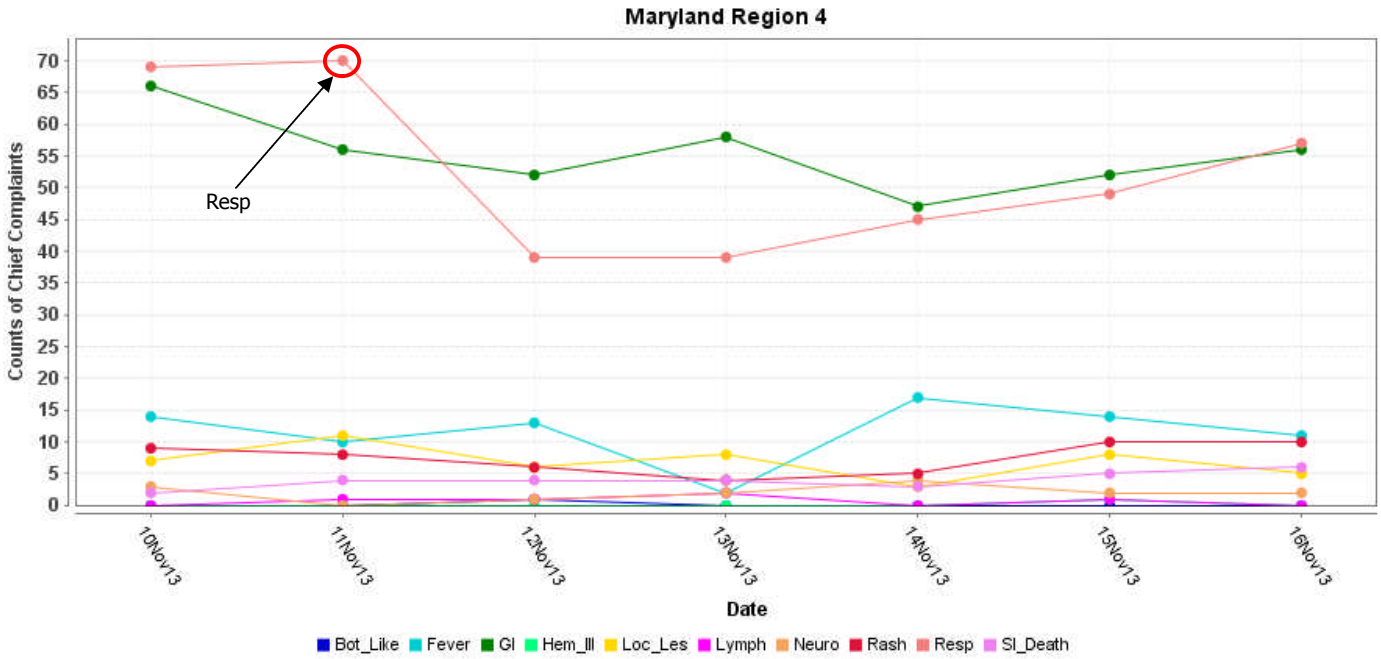
MARYLAND ESSENCE:



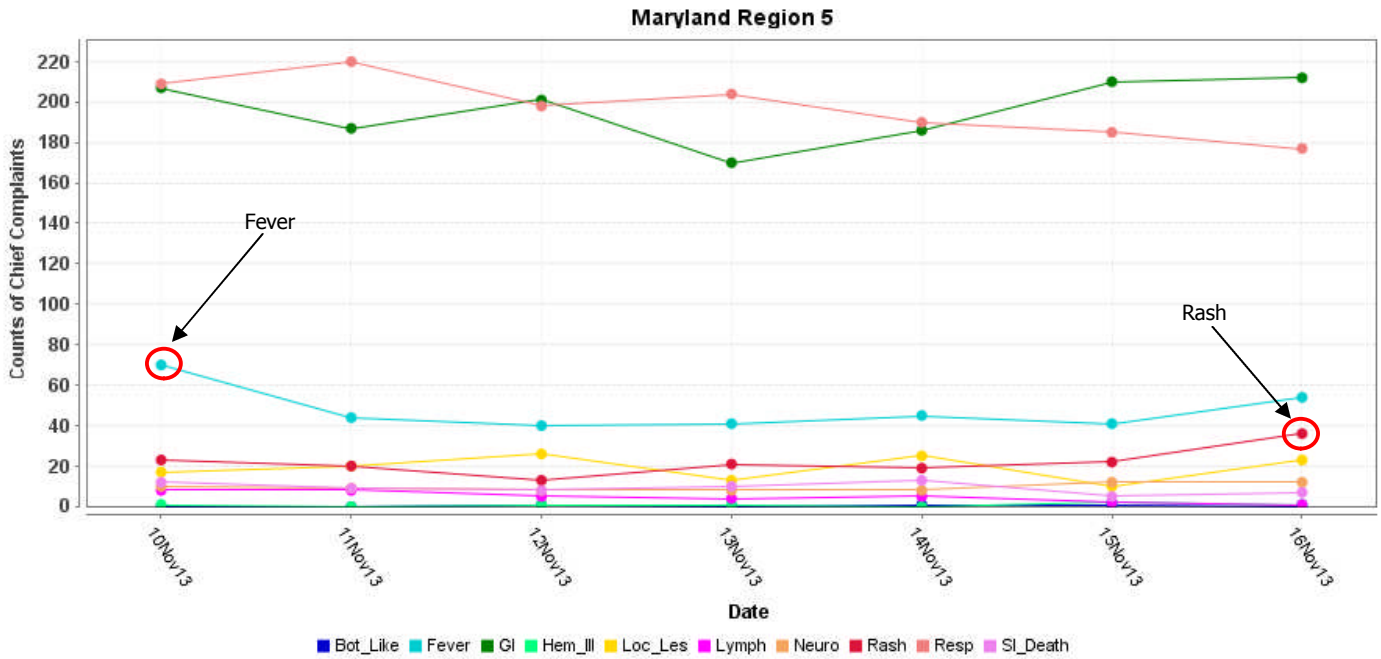
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



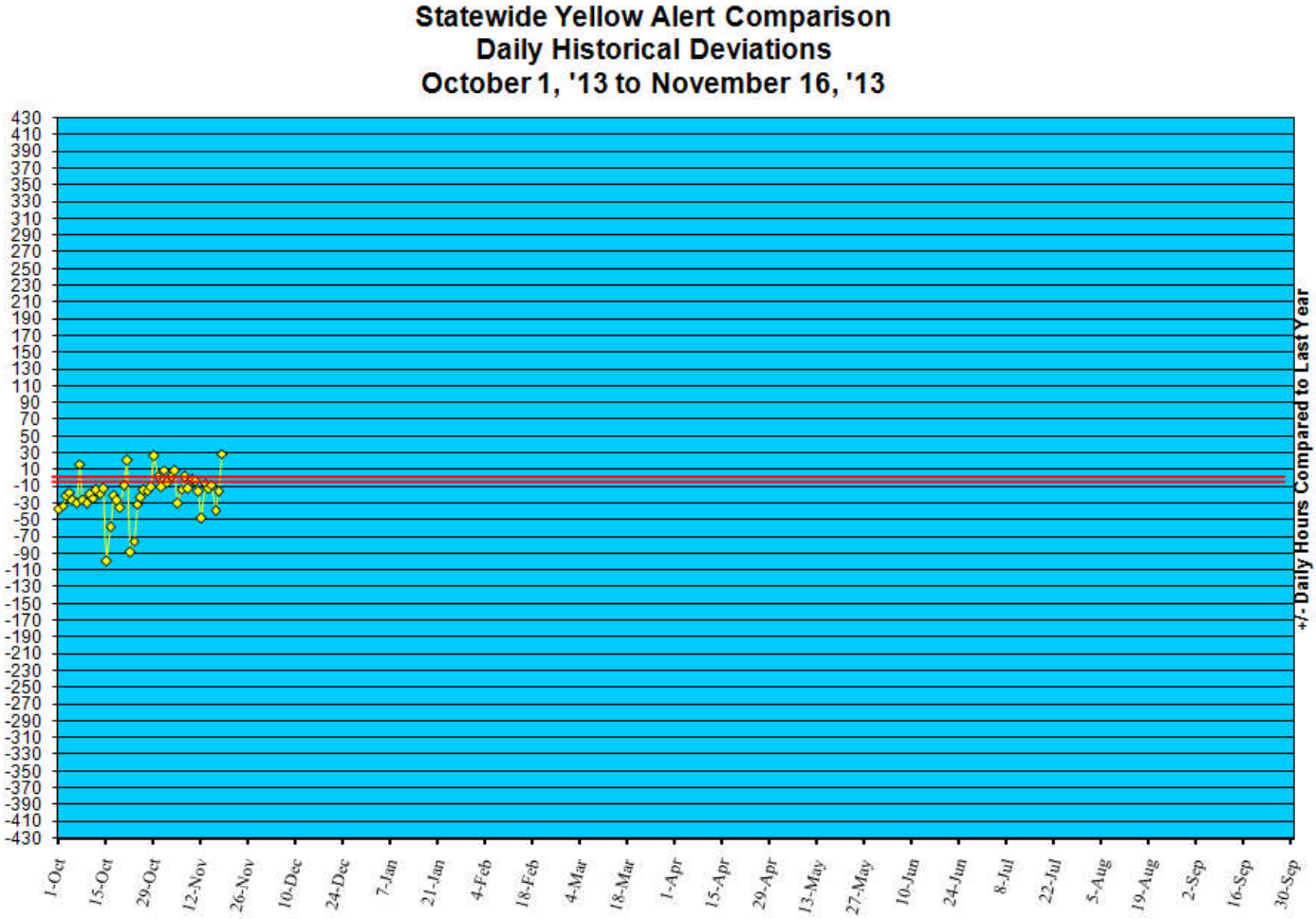
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/13.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in October 2013 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (November 10 - November 16, 2013):	6	0
Prior week (November 3 - November 9, 2013):	6	0
Week#46, 2012 (November 12 – November 18, 2012):	13	0

3 outbreaks were reported to DHMH during MMWR Week 46 (November 10 - November 16, 2013)

1 Respiratory Illness Outbreak
1 outbreak of ILI/PNEUMONIA in a Nursing Home

2 Rash Illness Outbreaks
1 outbreak of SCABIES in a Nursing Home
1 outbreak of FIFTH DISEASE associated with a School

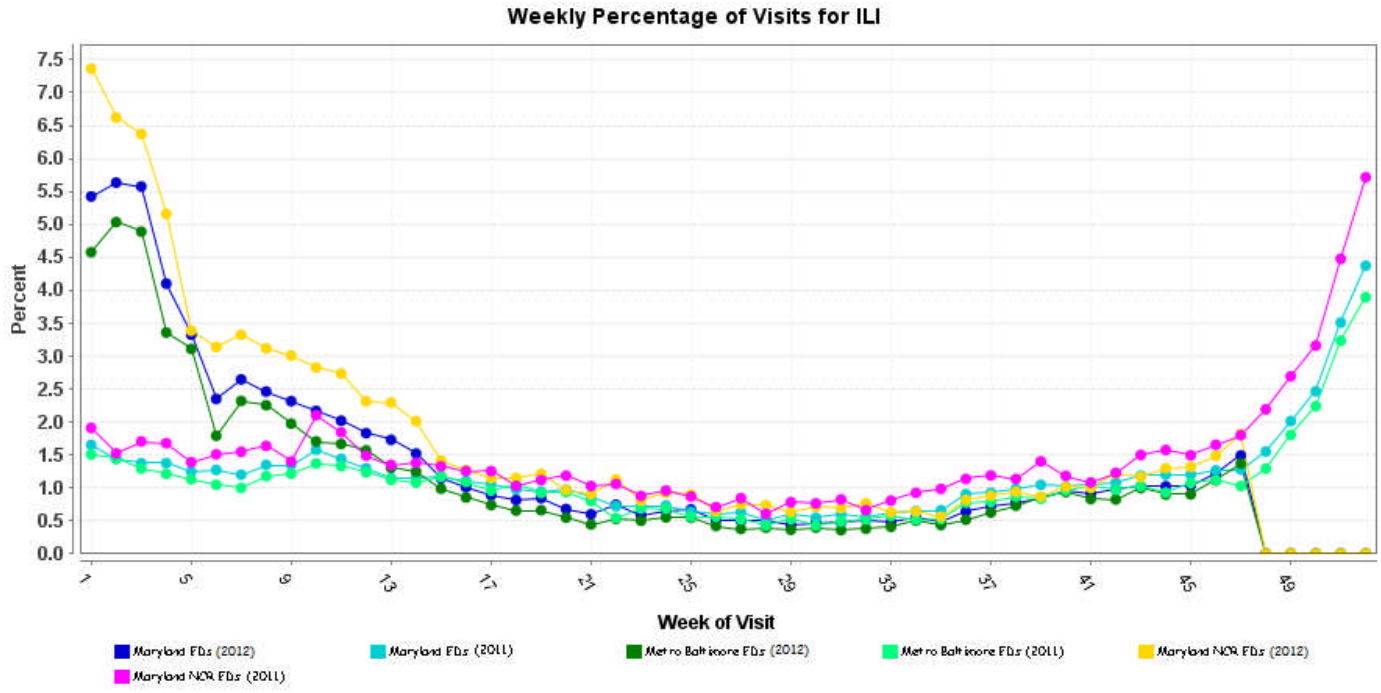
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 46 was: Local Spread with Minimal Intensity

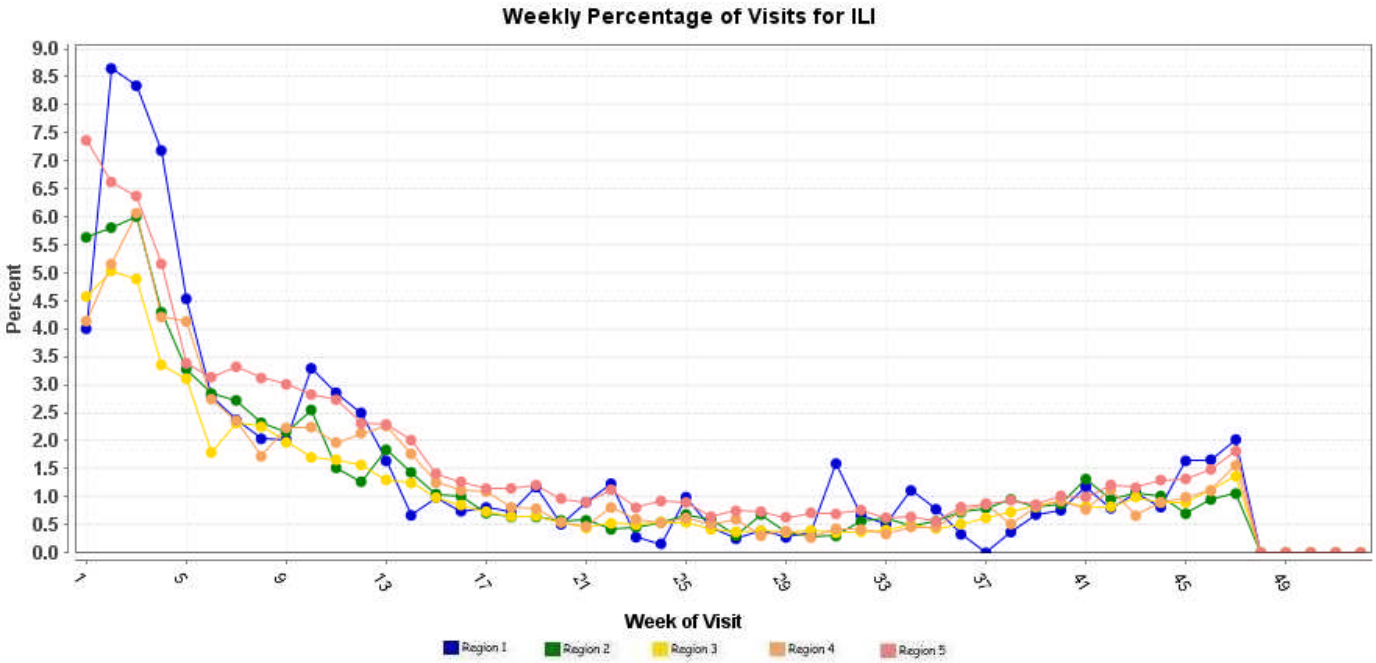
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



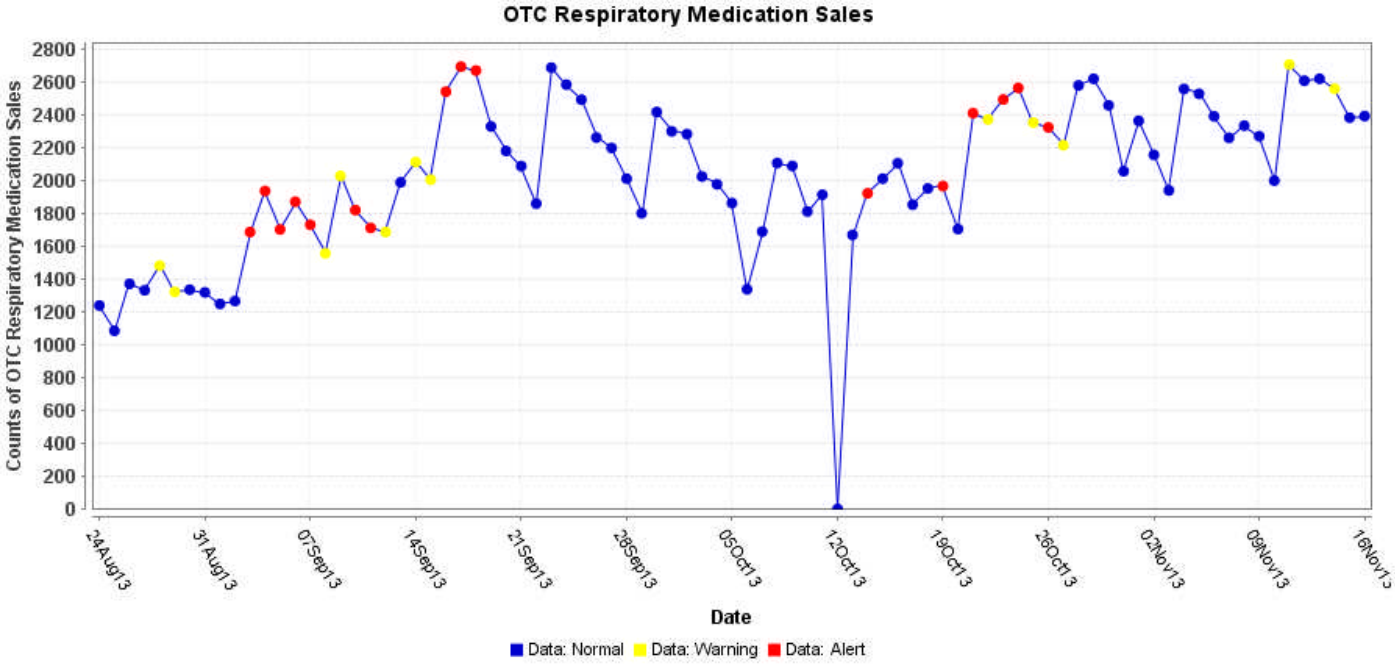
* Includes 2012 and 2013 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2013 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of October 8, 2013, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 641, of which 380 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA, HUMAN, H7N9 (CHINA): 11 November 2013, A 64-year-old farmer in east China's Zhejiang Province has been confirmed to have contracted H7N9 avian influenza virus infection, bringing the total number of [human] avian influenza cases in China to 4 this autumn, local health authorities said on Saturday [9 Nov 2013]. The farmer from Jiaxing City was confirmed as having the disease on Mon 4 Nov 2013 after she began showing symptoms on 30 Oct 2013. She is now in a serious condition, according to the Zhejiang Provincial Health Department. This case follows 2 others also in Zhejiang Province confirmed on 15 and 23 Oct 2013, and another in southern Guangdong Province confirmed on 5 Nov 2013. China had reported 134 cases by the end of August [2013], with 45 fatalities, according to the National Health and Family Planning Commission. No new cases were reported on the Chinese mainland in September [2013].

NATIONAL DISEASE REPORTS*

E. COLI EHEC (USA): 10 November 2013, CDC is collaborating with public health officials in California, Washington, and Arizona; the U.S. Department of Agriculture's Food Safety and Inspection Service (USDA-FSIS); and the FDA to investigate a multistate outbreak of Shiga toxin-producing *Escherichia coli O157:H7* infections. Public health investigators are using DNA "fingerprints" of *E. coli* bacteria obtained through diagnostic testing with pulsed-field gel electrophoresis, or PFGE, to identify cases of illness that could be part of this outbreak. They are using data from PulseNet, the national subtyping network made up of state and local public health laboratories and federal food regulatory laboratories, which performs molecular surveillance of foodborne infections. The type of bacteria responsible for this outbreak is among those referred to as Shiga toxin-producing *E. coli*, or STEC or enterohemorrhagic *E. coli (EHEC.)* Some types of STEC frequently cause severe disease, including bloody diarrhea and hemolytic uremic syndrome (HUS), which is a type of kidney failure. EHEC bacteria are divided into serogroups (e.g., O157 or O121). *E. coli O157* is the EHEC serogroup found most commonly in American patients. The EHEC O157:H7 PFGE pattern in this outbreak is new to the PulseNet database. It has never been seen before. A total of 26 individuals infected with the outbreak strain of EHEC O157:H7 have been reported from 3 states. The number of ill persons identified in each state is as follows: Arizona (1), California (22), and Washington (3). Among persons for whom information is available, illness onset dates range from 29 Sep 2013 to 26 Oct 2013. Ill persons range in age from 4 years to 78 years, with a median age of 28 years. 61 percent of ill persons are female. Among 21 persons with available information, 6 (28 percent) reported being hospitalized. Two ill persons have developed HUS, and no deaths have been reported. Epidemiologic and traceback investigations conducted by officials in local, state, and federal public health, agriculture, and regulatory agencies indicate that 2 ready-to-eat salads, Field Fresh Chopped Salad with Grilled Chicken and Mexicali Salad with Chili Lime Chicken, produced by Glass Onion Catering and sold at Trader Joe's grocery store locations, are one likely source of this outbreak of EHEC O157:H7 infections. CDC and state and local public health partners are continuing laboratory surveillance through PulseNet to identify additional ill persons and to interview ill persons about foods eaten before becoming ill. FSIS and FDA are continuing to work closely with CDC and state partners during this investigation. This investigation is ongoing, and work is continuing to determine the source of contamination and identify any other potentially contaminated products still on the market. CDC will update the public when additional information is available. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *non-suspect case

INTERNATIONAL DISEASE REPORTS*

FOODBORNE ILLNESS (MADAGASCAR): 15 November 2013, A total of 4 people have died from food poisoning caused by the consumption of shark meat in the district of East Fenerive, Madagascar. According to the local journal Midi, after the death of 2 men, a child and a woman who died of food poisoning after eating shark meat in the village of Ampasibe Manampatrana, Fenerive East [Analanjirofo Region], the death toll increased to 4 persons. While most of the victims were able to return to their homes, others are still quite ill, said The News. After 4 days of intensive care, 10 patients have not yet awakened from coma, while 3 others are aware but are in a serious condition. Hospital sources say that "23 patients are still being followed day and night, with doctors closely monitoring their health." According to The News, 4 of them have been transferred to the hospital in Toamasina [Atsinanana Region], as their cases required the use of more appropriate care materials. Note that this food intoxication goes back to last Monday, 11 Nov 2013, after a local fisherman captured and sold, in the local market, a shark of a weight of 120 kg, suspected to be toxic and harmful to human health. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

SALMONELLA (AUSTRALIA): 14 November 2013, Queensland health authorities are investigating an outbreak of food poisoning that may have contributed to a woman's death and sickened 220 other people. A 77-year-old woman has died after falling ill from salmonellosis at Melbourne Cup functions earlier in November 2013. Dr Susan Vlack from Brisbane's metro north public health unit says salmonellosis did not cause the woman's death but may have been a contributing factor. The outbreak has been linked to Brisbane firm Piccalilli Catering, which provided food for up to 40 different Melbourne Cup events on 5 Nov 2013. Up to 700 people may have been exposed. Piccalilli Catering co-owner Helen Grace has expressed her deep regret

at what has occurred. "We are deeply upset and distressed by this outcome," she said in a statement. Ms Grace says their catering on Melbourne Cup day included fresh mayonnaise made by the company's chefs with eggs purchased from a usually reputable supplier. "We had no reason to believe they were not up to the very high standards we demand of our suppliers," she said. "Suffice to say we will not source produce from this supplier in the future." Dr Vlack says they are concerned that people who are infected will spread the illness into the wider community. "There [are] not too many people who have been very sick," she said. "We have had 7 people we have identified as being hospitalized and probably about 2 of those are reasonably sick. Salmonella occurs particularly in meats such as chicken, pork, beef and in egg products. Those products are often part of a catered meal, so sometimes in small amounts in different dishes. If you're sick, check with the doctor for fever and diarrhea." Dr Vlack says letters have been sent to all companies and private function coordinators who used the caterer, advising them of the situation. She says they have been advised to report back on anyone who is experiencing sickness, particularly if they are health workers or staff handling food. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

MERS-COV (SAUDI ARABIA, OMAN): 11 November 2013, The 1st known case of [MERS] coronavirus in Oman succumbed to the deadly virus on [Saturday] morning [9 Nov 2013] after battling the illness for 12 days. The 68-year-old Omani from the country's northwest region was first diagnosed with [MERS] on [29 Oct 2013] at the Adam health centre, about 200 km [124 mi] northwest of Muscat, but he was moved to the Nizwa Hospital as he had a persistent fever, where he tested positive for the virus. According to a press release issued by the Ministry of Health, the patient was suffering from multiple chronic diseases, including diabetes, high blood pressure and heart disease. "He was under the best medical care but his condition kept deteriorating and on Saturday morning [9 Nov 2013] he breathed his last due to lung failure," a spokesman for the ministry said. During a recent interaction with media Dr Ahmad Bin Mohammad Al Saeedi, Oman's Minister of Health, had said: "We have examined 129 cases over the last year and all tested negative for this virus. We have a strong surveillance system which has also been appreciated by the WHO." Symptoms of [MERS] infection include renal failure and severe acute pneumonia, which often result in a fatal outcome. The 1st patient had a "7-day history of fever, cough, expectoration and shortness of breath". MERS has an estimated incubation period of 12 days. Meanwhile, Saudi health authorities announced on Sunday [10 Nov 2013] a new death caused by [MERS], bringing to 53 the number of fatalities in the kingdom from the coronavirus. The health ministry gave no details on the latest death in the country most affected by the disease that first appeared in the Gulf state in September 2012. The virus has so far cost 64 lives worldwide, according to a [4 Nov 2013] update by the World Health Organisation (WHO). Experts are struggling to understand [MERS], for which there is no vaccine. It is considered a deadlier but less-transmissible cousin of the [SARS] virus that erupted in Asia in 2003 and infected 8273 people, 9 per cent of whom died. Like [SARS], [MERS] appears to cause a lung infection, with patients suffering from [fever], cough, and breathing difficulty. But it differs in that it also causes rapid kidney failure and the extremely high death rate has caused serious concern. In August [2013], researchers pointed to Arabian camels as possible hosts of the virus. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

National and International Disease Reports are retrieved from http://www.promedmail.org/.

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

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Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumoccocal meningitis, viral encephailitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephailitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents (continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable